

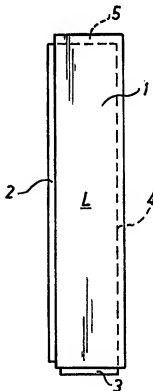


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup>:</b> <b>E04F 15/02, 15/04</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 98/38401</b>  <b>(43) International Publication Date:</b> 3 September 1998 (03.09.98)
<b>(21) International Application Number:</b> PCT/SE98/00223  <b>(22) International Filing Date:</b> 10 February 1998 (10.02.98)  <b>(30) Priority Data:</b> 9700671-2 26 February 1997 (26.02.97) SE  <b>(71) Applicant (for all designated States except US):</b> TARKETT AB [SE/SE]; S-289 89 Hanaskog (SE).  <b>(72) Inventor; and</b> <b>(75) Inventor/Applicant (for US only):</b> STRIDSMAN, Per-Eric [SE/SE]; Fridhäll, S-289 50 Hanaskog (SE).  <b>(74) Agent:</b> AWAPATENT AB; P.O. Box 5117, S-200 71 Malmö (SE).		<b>(81) Designated States:</b> AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Swedish).</i>

**(54) Title:** PARQUET FILLET**(57) Abstract**

A rectangular parquet fillet (21) comprises at its edge surfaces a tongue-and-groove arrangement to be connected to other parquet fillets provided with tongue-and-groove arrangements in order to form a floor. The tongue-and-groove arrangement comprises a groove (22) in each terminal edge surface of the fillet (21), which groove extends over the whole width of the fillet. A first tongue (23) is arranged at one side edge surface of the fillet (21) and is positioned in one end portion of the fillet in an area extending from the terminal edge surface of the fillet (21) in this end portion along the fillet, a distance which is smaller than or equal to the width of the fillet. A tongue arrangement (25, 26, 28) is arranged at the other side edge surface of the fillet.



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MM	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CN	China	KR	Republic of Korea	PL	Poland		
CM	Cameroon	KZ	Kazakhstan	PT	Portugal		
CN	China	LC	Saint Lucia	RO	Romania		
CZ	Czech Republic	LI	Liechtenstein	RU	Russian Federation		
DE	Germany	LK	Sri Lanka	SD	Sudan		
DK	Denmark	LR	Liberia	SE	Sweden		
EE	Estonia			SG	Singapore		

PARQUET FILLET

The present invention relates to a parquet fillet, which has a rectangular shape and which has at its edge surfaces a tongue-and-groove arrangement to be connected to other parquet fillets provided with tongue-and-fillet  
5 arrangements in order to form a floor, in particular a floor in which the fillets form a herring-bone pattern.

A portion of a parquet floor laid in a herring-bone pattern by means of prior-art parquet fillets of this type is shown in Fig. 1. These prior-art fillets are  
10 shown in more detail in Figs 2 and 3. The parquet fillets 1 are rectangular and have a tongue 2 at one side edge surface, a tongue 3 at one terminal edge surface, a groove 4 in the other side edge surface and a groove 5 in the other terminal edge surface. These tongues 2, 3 and  
15 grooves 4, 5 extend over the whole length of the respective edge surfaces. In order to lay a floor, in which the fillets 1 form a herring-bone pattern, by means of the prior-art fillets, they must be provided as left-hand fillets (L) and right-hand fillets (R), which differ only  
20 by being the reflected image of one another as regards the tongue-and-groove arrangement (cf. Figs 2 and 3).

The prior-art fillets 1 usually have a wearing layer, a bottom layer and an intermediate layer, which consists of a plurality of juxtaposed wood strips extending in the transverse direction of the fillet.  
25 tongues 2, 3 and the grooves 4, 5 are formed in the intermediate layer. Since the direction of the wood fibres in the strips extends in the transverse direction of the fillet 1, the tongue 3 formed at the terminal edge  
30 surface of the fillet becomes fragile and easily breaks during the handling. In order to obviate this problem, this tongue 3 has been replaced by a groove and instead a loose tongue is used, which is positioned in this groove when laying the floor. By using a loose tongue in this

way, the need of two types of fillets (a left-hand and a right-hand fillet) has been eliminated. However, a disadvantage of this solution is that it is quite complicated to handle and mount loose tongues during the laying of the floor. Another more important disadvantage is that loose tongues result in an inferior alignment of the fillets than do the fixed tongues 3.

One object of the present invention is to provide a parquet fillet, which solves the above-mentioned problem without giving rise to the last-mentioned disadvantages.

According to the invention, this object is achieved by a parquet fillet of the type defined by way of introduction and characterised in that the tongue-and-groove arrangement comprises a groove in each terminal edge surface of the fillet, which groove extends over the whole width of the fillet, a first tongue at one side edge surface of the fillet, which tongue is positioned in one end portion of the fillet in an area extending from the terminal edge surface of the fillet in this end portion along the fillet a distance which is smaller than or equal to the width of the fillet, and a tongue arrangement at the other side edge surface of the fillet.

In a particularly simple embodiment, a groove extends along said one side edge surface of the fillet from the first tongue to the opposite terminal edge surface of the fillet and the tongue arrangement at said other side edge surface of the fillet consists of a second tongue extending over the whole length of the fillet.

In a preferred embodiment, the tongue-and-groove arrangement comprises a second tongue at said one side edge surface of the fillet, which tongue is positioned in the other end portion of the fillet in an area extending from the terminal edge surface of the fillet in this other end portion along the fillet a distance which is smaller than or equal to the width of the fillet, and a third and a fourth tongue at the other side edge surface of the fillet, which tongues are positioned in the first

and the second end portion, respectively, of the fillet in the same area as the first and the second tongue, respectively. At least one additional tongue is preferably arranged at each side edge surface between the first and the second tongue and between the third and the fourth tongue, respectively, the distance between the tongues at the respective side edge surfaces being greater than the width of the fillet.

The invention will now be described in more detail with reference to the accompanying drawings.

Fig. 1 shows a portion of a parquet floor laid in a herring-bone pattern by means of the prior-art fillets that are described in more detail above.

Figs 2 and 3 show such a prior-art fillet on a larger scale, the fillet being shown with a left-hand and a right-hand design, respectively.

Fig. 4 shows a portion of a parquet floor laid in a herring-bone pattern by means of fillets according to the present invention.

Figs 5 and 6 show a fillet according to Fig. 4 on a larger scale, which fillet is shown with a left-hand and a right-hand design, respectively.

Fig. 7 shows a portion of a parquet floor laid in a herring-bone pattern by means of fillets according to the present invention, which fillets have a design different from that of the fillets shown in Figs 4-6.

Fig. 8 shows a fillet according to Fig. 7 on a larger scale.

The fillets 11 shown in Figs 5 and 6 are rectangular and have a tongue-and-groove arrangement at their edge surfaces. This tongue-and-groove arrangement comprises a groove 12 in each terminal edge surface of the fillet 11, which groove extends over the whole width of the fillet. The tongue-and-groove arrangement further comprises a first tongue 13 at one side edge surface of the fillet 11, which tongue is positioned in one end portion of the fillet in an area extending from the terminal edge sur-

face of the fillet 11 in this end portion along the fillet a distance which is smaller than or equal to the width of the fillet. The tongue-and-groove arrangement further comprises a groove 14 in the side edge surface where the first tongue 13 is positioned, and a second tongue 15 at the opposite side edge surface. The groove 14 extends from the first tongue 13 to the opposite terminal edge surface of the fillet 11. The second tongue 15 extends over the whole length of the fillet 11.

10 In order to make it possible to lay a floor, in which the fillets form a herring-bone pattern (see Fig. 4), the fillets 11 must be provided as left-hand fillets (L) and right-hand fillets (R), which are the reflected image of each other (cf. Figs 5 and 6). As is easily  
15 understood, in such a floor the terminal edge grooves 12 of the fillets 11 receive a first tongue 13 of an adjacent fillet.

The fillet 21 shown in Fig. 8 is also rectangular and has a tongue-and-groove arrangement at its edge surfaces. This tongue-and-groove arrangement, in conformity with the tongue-and-groove arrangement of the fillet 11, comprises a groove 22 in each terminal edge surface of the fillet 21, which groove extends over the whole width of the fillet. The tongue-and-groove arrangement of the  
25 fillet 21 further comprises a first tongue 23 and a second tongue 24 at one side edge surface of the fillet and a third tongue 25 and a fourth tongue 26 at the other side edge surface of the fillet. The first tongue 23 and the third tongue 25 are positioned in one end portion of  
30 the fillet 21 in an area extending from the terminal edge surface of the fillet in this end portion along the fillet a distance which is smaller than or equal to the width of the fillet. The second tongue 24 and the fourth tongue 26 are positioned in the other end portion of the  
35 fillet 21 in an area extending from the terminal edge surface of the fillet in this end portion along the fillet a distance which is smaller than or equal to the

width of the fillet. An additional tongue 27 is arranged at said one side edge surface of the fillet 21 between the first tongue 23 and the second tongue 24, and an additional tongue 28 is arranged at said other side edge surface of the fillet 21 between the third tongue 25 and the fourth tongue 26. The distance, i.e. the empty space, between the tongue 27 and the respective tongues 23, 24 and between the tongue 28 and the respective tongues 25, 26 is greater than the width of the fillet 21. A groove 29 extending between the respective tongues is formed in each of these spaces.

As is seen, the fillet 21 is symmetric both as regards its longitudinal and its transverse centre line. This results in the fillets 21 not having to be provided in special left-hand and right-hand designs.

As is easily understood, the terminal edge grooves 12 of the fillets, in a floor where the fillets 21 form a herring-bone pattern (see Fig. 7), receive the first, second, third or fourth tongue 23, 24, 25 and 26, respectively, of an adjacent fillet.

## CLAIMS

1. A parquet fillet, which has a rectangular shape  
5 and which has at its edge surfaces a tongue-and-groove  
arrangement to be connected to other parquet fillets pro-  
vided with tongue-and-groove arrangements in order to  
form a floor, in particular a floor in which the fillets  
form a herring-bone pattern, c h a r a c t e r i s e d i n  
10 that the tongue-and-groove arrangement comprises a groove  
(12; 22) in each terminal edge surface of the fillet (11;  
21), which groove extends over the whole width of the  
fillet, a first tongue (13; 23) at one side edge surface  
of the fillet (11; 21), which tongue is positioned in one  
15 end portion of the fillet in an area extending from the  
terminal edge surface of the fillet in this end portion  
along the fillet a distance which is smaller than or  
equal to the width of the fillet, and a tongue arrange-  
ment (15; 25, 26, 28) at the other side edge surface of  
20 the fillet.

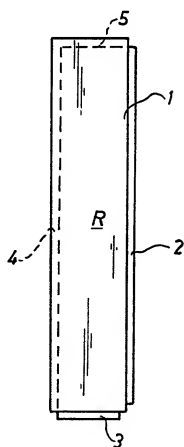
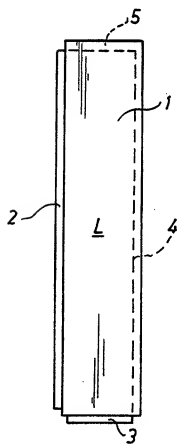
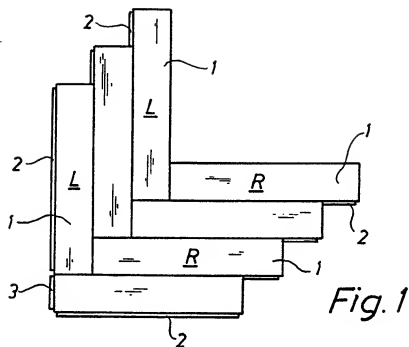
2. A parquet fillet according to claim 1, c h a r -  
a c t e r i s e d i n that a groove (14) extends along  
said one side edge surface of the fillet (11) from the  
first tongue (13) to the opposite terminal edge surface  
25 of the fillet, and the tongue arrangement at said other  
side edge surface of the fillet (11) consists of a second  
tongue (15) extending over the whole length of the  
fillet.

3. A parquet fillet according to claim 1, c h a r -  
a c t e r i s e d i n that the tongue-and-groove arrange-  
ment further comprises a second tongue (24) at said one  
side edge surface of the fillet (21), which tongue (24)  
is positioned in the other end portion of the fillet in  
an area extending from the terminal edge surface of the  
fillet in this other end portion along the fillet a dis-  
35 tance which is smaller than or equal to the width of the  
fillet, and a third and a fourth tongue (25 and 26) at



the other side edge surface of the fillet (21), which  
tongues (25, 26) are positioned in the first and the  
second end portion, respectively, of the fillet in the  
same area as the first and the second tongue, respec-  
5 tively (23 and 24).

4. A parquet fillet according to claim 3, c h a r -  
a c t e r i s e d in that at least one additional tongue  
(27, 28) is arranged at each side edge surface between  
the first and the second tongue (23 and 24) and between  
10 the third and the fourth tongue, (25 and 26), respec-  
tively, the distance between the tongues at the respec-  
tive side edge surfaces being greater than the width of  
the fillet (21).



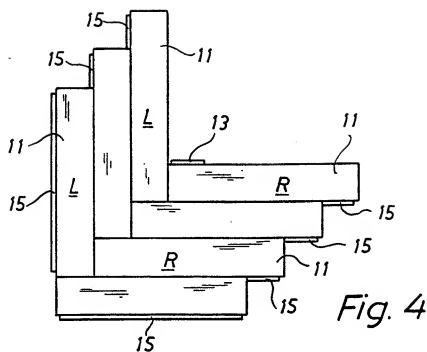


Fig. 4

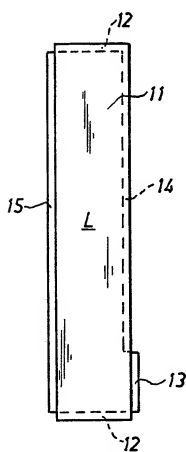


Fig. 5

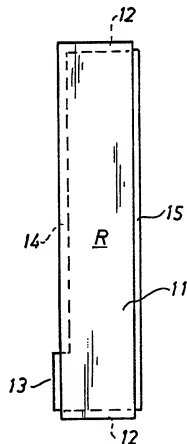
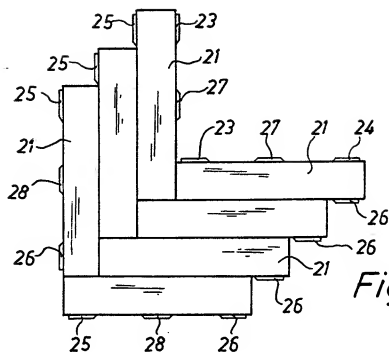
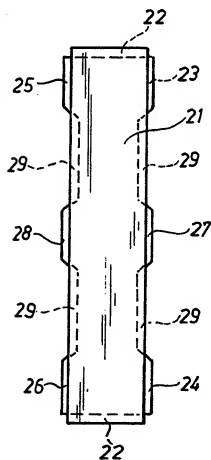


Fig. 6

3/3

*Fig. 7**Fig. 8*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 98/00223

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: E04F 15/02, E04F 15/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: E04F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2015813 A (H.C. NIELSEN), 1 October 1935 (01.10.35), figures 1,2, details 9,13 --	1-4
A	US 2187672 A (A.G.W. WEDBERG), 16 January 1940 (16.01.40), detail 14 --	1-4
A	US 3436888 A (P.A.R. OTTOSSON), 8 April 1969 (08.04.69), detail 11 --	1-4
A	WO 9700364 A1 (BRØDRENE FÜRST A/S), 3 January 1997 (03.01.97), figure 2, abstract -- -----	1-4

☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

- \* Special categories of cited documents
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

11 June 1998

 Name and mailing address of the ISA/  
 Swedish Patent Office  
 Box 5055, S-102 42 STOCKHOLM

Date of mailing of the international search report

24 -06- 1998

Authorized officer

Örjan Nylund

## INTERNATIONAL SEARCH REPORT

Information on patent family members

29/04/98

International application No.

PCT/SE 98/00223

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2015813 A	01/10/35	NONE	
US 2187672 A	16/01/40	NONE	
US 3436888 A	08/04/69	DE 1684056 A DK 122900 B FI 43006 B SE 301705 B	13/01/72 24/04/72 02/09/70 17/06/68
WO 9700364 A1	03/01/97	AU 6140296 A NO 300387 B NO 952349 A	15/01/97 20/05/97 16/12/96